PUBLIC NOTICE

Kentucky-Tennessee Clay Company has applied to the Tennessee Air Pollution Control Division (TAPCD) for renewal of a major source operating permit subject to the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations (also frequently referred to as Title V regulations). A major source (Title V) operating permit is required by both the Federal Clean Air Act and the Tennessee Air Pollution Control Regulations.

The applicant is Kentucky-Tennessee Clay Company, with a site address of 5450 Old State Route 22, Gleason, TN 38229. They seek to renew their major source operating permit for their Mineral Processing Facility consisting of equipment used for ball clay processing and packaging. However, it should be noted that this facility has a current Title V operating permit (565190).

EPA has agreed to treat this draft Part 70 permit as a proposed Part 70 permit and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. Whether EPA's 45-day review period is performed concurrently with the public comment period or after the public comment period has ended, the deadline for citizens' petitions to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended (*i.e.*, sequentially).

The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen's petition can be found at the following website address:

http://www2.epa.gov/caa-permitting/caa-permitting-epas-southeastern-region

A copy of the application materials used by the TAPCD and a copy of the draft / proposed permit are available for public inspection during normal business hours at the following locations:

Gleason Memorial Library
105 College Street
Gleason, TN 38229

and

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass TN Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Also, if you require a copy of the draft / proposed permit it is available electronically by accessing the TDEC internet site located at:

https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be made within thirty (30) days of the date of this notice and should be addressed to **Ms. Michelle Walker-Owenby, Director, Tennessee Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243**. Questions concerning this source may be directed to Mr. Abbas Yavari at the above address or by calling (615)-532-0554. A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to participate in these proceedings (or to review these filings) should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such participation. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, 2nd Floor, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

(Do Not Publish Text Below The Dotted Line.)

For the ***Weakley County "Weakley County Press"*** **--** publish **once** during the time period of July19, 2019, through July 26, 2019.

Air Pollution Control Date: July 12, 2019

Assigned to – Abbas Yavari

No alterations to the above are allowed:

Kentucky-Tennessee Clay Company must pay for publication of this notice in the newspaper shown.
Air Pollution Control must be furnished with an affidavit from the newspaper stating that the ad was run and the date of the ad or one complete sheet from the newspaper showing this advertisement, the name of the newspaper and the date of publication. Mail to Abbas Yavari, Division of Air Pollution Control, 15th Floor, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, Nashville, Tennessee 37243, or send a PDF copy of this same information to Air.Pollution.Control@tn.gov.

TITLE V PERMIT STATEMENT

Facility Name: Kentucky-Tennessee Clay Company
City: Gleason
County: Weakley

Date Application Received: April 4, 2018
Date Application Deemed Complete: April 4, 2018

Emission Source Reference No.: 92-0020
Permit No.: 573982

INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-03-09-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to ***Kentucky-Tennessee Clay Company*** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

Acronyms

PSD - Prevention of Significant Deterioration
NESHAP - National Emission Standards for Hazardous Air Pollutants
NSPS - New Source Performance Standards
MACT - Maximum Achievable Control Technology
NSR - New Source Review
GHG - Greenhouse Gas

I. Identification Information

A. Source Description

List and describe emission source(s): Ball Clay processing facility with milling and loading operation.

01: 98-63 Milling System
02: 200 Milling System
03: 100 Milling System
04: Bagger
05: 66 Fluidized Bed Dryer System
06: 66 Roller Mill System
07: Truck Tanks 1 & 2 with baghouse, 3 & 4 with baghouse, 5 & 6 with baghouse, Truck Tank 7 and Supersack Loadout
08: 300 Milling System
09: Silo 1, Silo 2 and Silo 3 with Truck and Rail Loadout, 66Truck Tank

B. Facility Classification

1. Attainment or Non-Attainment Area Location

Area ***is*** designated as an attainment area for all criteria pollutants.

2. Company ***is*** located in a Class II area.

C. Regulatory Status

1. PSD/NSR

This facility ***is not*** an existing major source under PSD.

2. Title V Major Source Status by Pollutant

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM	**YES**	**X**	
PM_{10}	**YES**	**X**	
SO_2	**YES**	**X**	
VOC	**YES**		**X**

NO_X	**YES**		**X**
CO	**YES**		**X**
Individual HAP	**YES**		**X**
Total HAPs	**YES**		**X**
CO2 (eq)	**YES**		**X**

Pollutant	Potential to Emit, tons per year
PM	79.60
SO2	124.20
VOC	1.10
NOx	29.50
HAP included in VOCs above	-

Agreement letter from permittee dated July 11, 2019, limits the maximum throughput rate for sources 05 and 06 to 166,500 tons per year based on a 12 month rolling total to avoid the need for a CAM Plan (Federal Register page 54914/Vol. 62. No. 204/Wednesday, October 22, 1997). The throughput rate limit for sources 05 and 05 will limit the PTE uncontrolled PM emissions to 99.9 tons per year.

3. MACT Standards

This facility *is not* a major source for HAPs. This facility *is not* subject to a proposed or final MACT Standard.
List MACT Rule(s) if applicable:

4. Program Applicability

Are the following programs applicable to the facility?

PSD *(no)*
NESHAP *(no)*
NSPS ***(yes)*** 40 CFR Part 60 Subpart OOO, 40 CFR Part 60 Subpart UUU

Source	**NSPS**
01	Yes-40 CFR 60, Subpart OOO
02	No-Installed prior to 1970
03	No-Installed prior to 1970
04	No-Installed prior to 1970
05	Yes-40 CFR 60, Subpart UUU
06	-
07	Truck Tanks 1 & 2 (Non-NSPS) Truck Tanks 3 & 4 (NSPS) -Subpart OOO Truck Tanks 5 & 6 (NSPS) Supersack Loadout (Non-NSPS)
08	No-Installed prior to 1970
09	Silos 1 and 2 - No Silos 3 and 66 Truck tank are NSPS 40 CFR 60, Subpart OOO

II. Compliance Information

A. Compliance Status

Is the facility currently in compliance with all applicable requirements? *yes*
If no, explain.

Are there any applicable requirements that will become effective during the permit term? NO
If yes, explain.

III. Other Requirements

A. Emissions Trading

The facility is not involved in an emission trading program.

B. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

C. Prevention of Accidental Releases

Not Applicable

D. Greenhouse Gas (GHG) Emissions

This facility has potential annual GHG emissions of 26,538.64 tons from natural gas combustion and 35,930.58 tons from No. 2 fuel oil combustion.

IV. Public Participation Procedures

Notification of this draft permit was mailed to the following environmental agencies:

1. Environmental Protection Agency
2. State of Kentucky
3. State of Missouri

V. Project Description

Title V Operating Permit No. 573982 represents the third renewal of the original Title V Permit No. 548487 issued June 30, 1998. The following changes have occurred with this renewal:

Title V operating No. 565190 was renewed on October 8, 2013.

ADDENDUM #1 to STATEMENT OF BASIS for Kentucky-Tennessee Clay Company Title V Permit 548483

The modification reflects an Administrative Amendment changing the responsible official to Arson Potts.

ADDENDUM #2 to STATEMENT OF BASIS for Kentucky-Tennessee Clay Company Title V Permit 548483

The modification reflects a Minor permit modification to replace two fluidized bed dryers with one fluidized bed dryer. The change occurred at source 92-0020-05.

TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

NASHVILLE, TENNESSEE 37243

DRAFT/Proposed

OPERATING PERMIT (TITLE V) Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-3-9-.02(11) of the Tennessee Air Pollution Control Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

Date Issued: DRAFT/proposed **Permit Number:** 573982

Date Expires: DRAFT/proposed

Issued To:
Kentucky-Tennessee Clay Company

Installation Address:
5450 Old Highway 22
Gleason

Installation Description: Ball Clay Processing

01: 98-63 Milling System (NSPS)
02: 200 Milling System (Non-NSPS)
03: 100 Milling System (Non-NSPS)
04: Bagger (Non-NSPS)
05: 66 Fluidized Bed Dryer System (NSPS)
06: 66 Roller Mill System (Non-NSPS)
07: Truck Tanks 1 & 2 with baghouse (Non-NSPS), Truck Tanks 3 & 4 with baghouse (NSPS), Truck Tanks 5 & 6 with baghouse (NSPS), and Truck Tank 7 and Supersack Loadout (Non-NSPS)
08: 300 Milling System (Non-NSPS)
09: Silo 1, Silo 2 and Silo 3 with Truck and Rail Loadout, Truck Tank (NSPS)

Emission Source Reference No.: 92-0020
Renewal Application Due Date: **Primary SIC:** 14
Between ----------

Information Relied Upon:
Title V Permit 565190 issued October 8, 2013
Renewal Application dated March 26, 2018

TECHNICAL SECRETARY

POST AT INSTALLATION ADDRESS

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

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SECTION A

GENERAL PERMIT CONDITIONS

A permit issued under the provisions of paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulation.

TAPCR 1200-03

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to paragraph 1200-03-09-.02(11) including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act.

The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may

mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

A7. **Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

A8. **Fee payment.**

(a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.

(b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.

(c) When paying annual Title V emission fees, the permittee shall comply with all provisions of 1200-03-26-.02 and 1200-03-09-.02(11) applicable to such fees.

(d) Where more than one (1) allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.

1. Sources that are subject to federally promulgated hazardous air pollutant under 40 CFR 60, 61, or 63 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.

2. A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at part 1200-03-26-.02(2)(i)12 that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63.

3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM_{10} shall not be placed in either the regulated HAP category or miscellaneous HAP category.

4. Sources that are subject to a provision of chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 0400-30-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM_{10}, sulfur dioxide (SO_2), volatile organic compounds (VOC), nitrogen oxides (NO_x), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.

5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

6. Major sources that wish to pay annual emission fees for PM_{10} on an allowable emission basis may do so if they have a specific PM_{10} allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM_{10} emission basis, it may do so if the PM_{10} actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM_{10} emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM_{10} emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) shall also apply to PM_{10} emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

A9. **Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

A10. **Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized Division representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

(a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by the Clean Air Act and Chapter 1200-03-10 of TAPCR ., sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3.(ii)

A11. **Permit shield.**

(a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:

1. Such applicable requirements are included and are specifically identified in the permit; or

2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

(b) Nothing in this permit shall alter or affect the following:

1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;

2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or

4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.

(c) Permit shield is granted to the permittee.

TAPCR 1200-03-09-.02(11)(e)6

A12. **Permit renewal and expiration.**

(a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.

(b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in paragraph 1200-03-09-.02(11).

(c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

A13. Reopening for cause.

(a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:

1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to 1200-03-09-.02(11)(a)2.

2. Additional requirements become applicable to an affected source under the acid rain program.

3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.

(c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.

(d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, he is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he agrees or disagrees with the Administrator's findings. If he agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:

1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90 day time period.

2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.

3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13 (b) and Condition A13 (c).

4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), he shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how he should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7.

A14. **Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:

(a) Transfer of ownership permit application is filed consistent with the provisions of 1200-03-09-.03(6), and

(b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

A15. **Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR . 1200-03-09-.03(1) and TAPCR . 1200-03-15-.03.

A16. **Construction permit required.** Except as exempted in TAPCR . 1200-03-09-.04, or excluded in subparagraph TAPCR . 1200-03-02-.01(1)(aa) or subparagraph TAPCR . 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

A17. **Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.

(a) change in air pollution control equipment

(b) change in stack height or diameter

(c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

A18. **Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3 and 40 CFR Part 70.5(c)

A19. **Title VI.**

(a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

(b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

(c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program(SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

A20. **112 (r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

SECTION B

GENERAL CONDITIONS for MONITORING, REPORTING, and ENFORCEMENT

B1. **Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

(a) Where applicable, records of required monitoring information include the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The company or entity that performed the analysis;
4. The analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions as existing at the time of sampling or measurement.

(b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B2. **Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

B3. **Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

B4. **Certification.** Except for reports required under “State Only” requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

B5. **Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(a) The identification of each term or condition of the permit that is the basis of the certification;

(b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;

(c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion* or exceedance** as defined below occurred; and

(d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

B6. **Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303

TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

B7. **Emergency provisions.** An emergency constitutes an affirmative defense to an enforcement action brought against this source for noncompliance with a technology based emission limitation due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

(a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles.

2. The permitted source was at the time being properly operated. In determining whether or not a source was being properly operated, the Technical Secretary shall examine the source's written standard operating procedures which were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense.

3. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

4. The permittee submitted notice of the emergency to the Technical Secretary according to the notification criteria for malfunctions in rule 1200-03-20-.03. For the purposes of this condition, "emergency" shall be substituted for "malfunction(s)" in rule 1200-03-20-.03 to determine the relevant notification threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding the permittee seeking to establish the occurrence of an emergency has the burden of proof.

(c) The provisions of this condition are in addition to any emergency, malfunction or upset requirement contained in Division 1200-03 or other applicable requirement.

TAPCR 1200-03-09-.02(11)(e)7

B8. **Excess emissions reporting.**

(a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

(b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.

(c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:

1. Stack or emission point involved

2. Time malfunction, startup, or shutdown began and/or when first noticed

3. Type of malfunction and/or reason for shutdown

4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation

5. The company employee making entry on the log must sign, date, and indicate the time of each log entry

The information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

B9. **Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other

appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

B10. Reserved.

B11. **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit within twenty (20) days after receipt of the notice of violation, the data required below. If this data has previously been available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same twenty (20) day time period. The minimum data requirements are:

(a) The identity of the stack and/or other emission point where the excess emission(s) occurred;

(b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

(c) The time and duration of the emissions;

(d) The nature and cause of such emissions;

(e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;

(f) The steps taken to limit the excess emissions during the occurrence reported, and

(g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the twenty (20) day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)

SECTION C
PERMIT CHANGES

C1. **Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

(a) The change cannot be subject to a requirement of Title IV of the Federal Act or Chapter 1200-03-30.

(b) The change cannot be a modification under any provision of Title I of the federal Act or Division 1200-03.

(c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in Rule 1200-03-09-.04.

(e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.

(f) The change shall not qualify for a permit shield under the provisions of part 1200-03-09-.02(11)(e)6.

(g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the

emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4 (ii)

C2. Section 502(b)(10) changes.

(a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR . 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.

(b) The written notification must be signed by a facility Title V responsible official and include the following:

1. a brief description of the change within the permitted facility;

2. the date on which the change will occur;

3. a declaration and quantification of any change in emissions;

4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and

5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.

(c) The permit shield provisions of TAPCR . 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4 (i)

C3. Administrative amendment.

(a) Administrative permit amendments to this permit shall be in accordance with 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.

(b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR . 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR . 1200-03-09-.02(11)(e), TAPCR . 1200-03-09-.02(11)(f) and TAPCR . 1200-03-09-.02(11)(g) for significant permit modifications.

(c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

C4. Minor permit modifications.

(a) The permittee may submit an application for a minor permit modification in accordance with TAPCR . 1200-03-09-.02(11)(f)5(ii).

(b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.

(c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

(d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

C5. Significant permit modifications.

(a) The permittee may submit an application for a significant modification in accordance with TAPCR . 1200-03-09-.02(11)(f)5(iv).

(b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

C6. New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR . 1200-03-09-.01 shall be governed by the following:

(a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.

(b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR . 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR . 1200-03-09-.02(11)(f)5(iv).

(c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR . 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR . 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d) 1(i)(V)

SECTION D

GENERAL APPLICABLE REQUIREMENTS

D1. **Visible emissions.** With the exception of air emission sources exempt from the requirements of TAPCR . Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1)hour or more than twenty (20) minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of twenty (20) percent (6-minute average) except for one six minute period per one (1) hour of not more than forty (40) percent opacity. Sources constructed or modified after July 7, 1992 shall utilize 6-minute averaging.

Consistent with the requirements of TAPCR . Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR . 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized Division representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR . 1200-03-05-.03(6) and TAPCR . 1200-03-05-.02(1)

D2. **General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

D3. **Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR 1200-03-06.

D4. **General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

D5. **Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR 1200-03-07.

D6. **Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit Sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

D7. **Fugitive Dust.**

(a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking

reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

(b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-03-20.

TAPCR 1200-03-08

D8. **Open burning.** The permittee shall comply with the TAPCR . 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

D9. **Asbestos.** Where applicable, the permittee shall comply with the requirements of Tenn. Comp. R. and Regs.1200-03-11-.02(2)(d) when conducting any renovation or demolition activities at the facility.

TAPCR 1200-03-11-.02(2)(d) and 40 CFR, Part 61

D10. **Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are not subject to source-specific applicable requirements contained in State of Tennessee and U.S. EPA regulations. By annual certification of compliance, the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR . 1200-03-09-.02(11)(e)1.(iii) and 1200-03-10-.04(2)(b)1 and compliance requirements of TAPCR 1200-03-09-.02(11)(e)3.(i). The permittee shall submit compliance certification for these conditions annually.

D11. **Emission Standards for Hazardous Air Pollutants.** When applicable, the permittee shall comply with the TAPCR 0400-30-38 for all emission sources subject to a requirement contained therein.

TAPCR 0400-30-38

D12. **Standards of Performance for New Stationary Sources.** When applicable, the permittee shall comply with the TAPCR 0400-30-39 for all emission sources subject to a requirement contained therein.

TAPCR 0400-30-39

D13. **Gasoline Dispensing Facilities.** When applicable, the permittee shall comply with the TAPCR 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

D14. **Internal Combustion Engines.**

(a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-38-.01.
(b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-39-.01.
(c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR 0400-30-39-.02.

TAPCR 0400-30-38 and 39

SECTION E

SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS, and MONITORING, RECORDKEEPING and REPORTING REQUIREMENTS

92-0020 **Facility Description:** Ball Clay Processing

Conditions E1 through E3-9 apply to all sources in Section E of this permit unless otherwise noted.

E1. Fee payment

FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 92-0020

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
PARTICULATE MATTER (PM)	79.60	AEAR	Includes all fee emissions.
PM_{10}	N/A	N/A	
SO_2	124.20	AEAR	Includes all fee emissions.
VOC	1.10	AEAR	Includes all fee emissions.
NO_x	29.50	AEAR	Includes all fee emissions.
CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAP WITHOUT A STANDARD)*			
VOC FAMILY GROUP	N/A	N/A	
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAP WITH A STANDARD)**			
VOC FAMILY GROUP	N/A	N/A	
NON-VOC GASEOUS GROUP	N/A	N/A	
PM FAMILY GROUP	N/A	N/A	
CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***			
EACH NSPS POLLUTANT NOT LISTED ABOVE	N/A	N/A	

NOTES

AAP The **Annual Accounting Period** (**AAP**) is a twelve (12) consecutive month period that **either (a) begins each July 1st and ends June 30th of the following year when fees are paid on a fiscal year basis, or (b) begins January 1st and ends December 31st of the same year when paying on a calendar year basis.** The **Annual Accounting Period** at the time of Title V Operating Permit renewal issuance **began July 1, 2019 and ends June 30, 2020.** The next Annual Accounting Period begins **July 1, 2020** and ends **June 30, 2021** unless a request to change the annual accounting period is submitted by the responsible

official as required by subparagraph 1200-03-26-.02(9)(b) and approved by the Technical Secretary**.** If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b), the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions.

N/A **N/A** indicates that no emissions are specified for fee computation.

AEAR If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **A**ctual **E**missions **A**nalysis is **required** to determine the actual emissions of:

- **(1)** **each regulated pollutant** (Particulate matter, SO_2, VOC, NO_X and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
- **(2)** **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family),
- **(3)** the **Miscellaneous HAP Category,**
- **(4)** the **Specific HAP Category**, and
- **(5)** the **NSPS Category**

under consideration during the **Annual Accounting Period**.

***** **Category of Miscellaneous HAP (HAP Without a Standard):** This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

****** **Category of Specific HAP (HAP With a Standard):** This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group**, the Non-VOC Gaseous** group**,** or the **Particulate (PM) Family** group**. For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(I).

******* **Category Of NSPS Pollutants Not Listed Above:** This category is made-up of each **N**ew **S**ource **P**erformance **S**tandard (**NSPS**) pollutant whose emissions are not included in the **PM**, **SO_2, VOC** or **NO_X** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i).

END NOTES

The permittee shall:

- **(1)** Pay Title V **annual emission fees**, on the emissions and year basis requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an **actual**, **allowable**, or **mixed** emissions basis; and on either a **state fiscal year** or a **calendar year**, provided the requirements of 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).
- **(2)** Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period pursuant to TAPCR 1200-03-26-.02(9)(d).
- **(3)** Sources paying annual emissions fees on an actual emissions basis: prepare an

actual emissions analysis for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **actual emissions analysis** required**,** and

(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.

(4) Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:

(a) the completed **Fee Emissions Summary Table**,

(b) each **actual emissions analysis** required**,** and

(c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the **actual emissions analysis**.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).

(5) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(g) and are dependent on the Responsible Official's choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within fifteen (15) days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in Condition A8(d) of this permit.

Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary at the following address:

Payment of Fee to:
The Tennessee Department of Environment and Conservation
Division of Fiscal Services
Consolidated Fee Section – APC
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 10th Floor
Nashville, Tennessee 37243

and

Actual Emissions Analyses to:
The Tennessee Department of Environment and Conservation
Division of Air Pollution Control
Emission Inventory Program
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, Tennessee 37243
or

An electronic copy (PDF) of actual emissions analysis can also be submitted to: apc.inventory@tn.gov

TAPCR 1200-03-26-.02 (3) and (9), and 1200-03-09-.02(11)(e)1 (vii)

E2. **Reporting requirements**.

(a) **Semiannual reports.** Semiannual report submittals shall cover the following permits and time periods:

Permit	Report period begins	Report period ends
565190 (existing)	July 1, 2019	Day before issuance date of permit 573982
573982 (renewal)	Issuance date of permit 573982	December 31, 2019

The report covering the full 6 month period shall be submitted within 60 days after December 31, 2019. Subsequent reports revert fully to permit #573982 and shall be submitted within 60 days after the end of each 6-month period following the first report.

These semiannual reports shall include:

(1) Any monitoring and recordkeeping required by Conditions E4-3, E5-3, E6-3, E7-1, E8-3, E9-3, E10-1, E10-2, E11-3, and E12-1 of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(2) The visible emission evaluation readings from Conditions E3-1, E4-4, E4-5, E8-4, E10-3, E10-4, and E12-2 of this permit if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

(3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**.

These reports must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to the Technical Secretary at the address in Condition E2(b) of this permit.

TAPCR 1200-03-09-.02(11)(e)1.(iii)

(b) **Annual compliance certification.** The permittee shall submit annually compliance certifications with each term or condition contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

(1) The identification of each term or condition of the permit that is the basis of the certification;
(2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
(3) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in E2(b)2 above. The certification shall identify each deviation and take it into account in the compliance certification. The certification

shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an *excursion or **exceedance as defined below occurred; and

(4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

* "Excursion" shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

** "Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

The first certification for this renewal shall cover the following permits and time periods:

Permit	Report period begins	Report period ends
565190 (existing)	January 1, 2019	Day before issuance date of permit 573982
573982 (renewal)	Issuance date of permit 573982	December 31, 2019

The certification covering the full 12 month period shall be submitted within 60 days after December 31, 2019. Subsequent reports revert fully to permit #573982 and shall be submitted within 60 days after the end of each 12 month period following the first certification.

These certifications must be certified by a responsible official consistent with condition B4 of this permit and shall be submitted to the Jackson Environmental Field Office and U.S. EPA at the addresses below. In lieu of mailing a hard copy of the certification to the Jackson Environmental Field Office, the permittee may submit an electronic copy of the certification to the email address below.

Jackson Environmental Field Office Division of Air Pollution Control 1625 Hollywood Drive Jackson, TN 38305 Or APC.JackEFO@tn.gov	and	Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667 and TAPCR 1200-03-09-.02(11)(e)3.(v)

(c) **Retention of Records.** All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

E3. General Permit Requirements.

E3-1. Visible emissions from this facility (not addressed in the source specific sections) shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.03(6) and 1200-03-05-.01(1)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E3-2. 1) No person shall cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

(a) Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
(b) Application of asphalt, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;
(c) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

2) No person shall cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR 1200-03-20. Fugitive emissions from this source shall be determined by Tennessee Visible Emissions Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.

TAPCR 1200-03-08-.01(1) and 1200-03-08-.01(2)

E3-3. The permittee shall maintain and repair the emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

Compliance Method: Records of all repair and maintenance activities required above shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years. The date each maintenance and repair activity began shall be entered in the log no later than thirty (30) days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than thirty (30) days from activity completion.

E3-4. The source(s) controlled by the air pollution control device(s) shall not operate unless the control device(s) is in operation. In the event a malfunction/failure of a control device(s) occurs, the operation of the process(es) controlled by the control device(s) shall be regulated by the provisions of Chapter 1200-03-20 of the Tennessee Air Pollution Control Regulations.

Compliance Method: Compliance with this condition shall be assured by demonstrating compliance with **Condition E3-3**

E3-5. A. The facility must take all reasonable measures to keep emissions to a minimum during source startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of

outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

TAPCR 1200-03-20-.02(1)

B. **Monitoring Systems**: Due allowance for failure to monitor shall be made during any period of monitoring system malfunction, provided that the source owner or operator shows, to the satisfaction of the Technical Secretary, that the malfunction was unavoidable and is being repaired as expeditiously as practicable, and that a log of all such malfunctions is being kept by the owner or operator, including the time the malfunction began, when it was detected, what was wrong, what was done to correct the malfunction, and when the malfunction was corrected. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

TAPCR 1200-03-10-.02(e)

Compliance Method: Following the requirements as identified in TAPCR 1200-03-20.

E3-6. The following recordkeeping requirements shall apply to this facility:

1) For monthly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than thirty (30) days from the end of the month for which the data is required.
2) For weekly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the week for which the data is required.
3) For daily recordkeeping, all data, including the results of all calculations, must be entered into the log no later than seven (7) days from the end of the day for which the data is required.
4) All maintenance activities required by **Condition E3-3** (including any ongoing maintenance that has not been completed) shall be entered in the maintenance log no later than thirty (30) days following the start of the maintenance.

Logs and records specified in this permit shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative and shall be retained for a period of not less than five (5) years unless otherwise noted. Logs and records contained in this permit are based on a recommended format. Any logs that have an alternative format may be utilized provided such logs contain the same or equivalent information that is required. Computer-generated logs are also acceptable.

TAPCR 1200-03-10-.02(2)(a)

Compliance Method: Compliance shall be demonstrated by retention of logs and records, as described above.

E3-7. The application that was utilized in the preparation of this permit is dated March 26, 2018, and identifies Arson Potts, as the Responsible Official of this facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.

The application that was utilized in the preparation of this permit is dated March 26, 2018, and identifies Brent Eugley as the Principal Technical Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.

The application that was utilized in the preparation of this permit is dated March 26, 2018, and identifies Brent Eugley as the Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within thirty (30) days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

TAPCR 1200-03-09-.02(6)

E3-8. The sulfur content of all No. 2 fuel oil used at this facility shall not exceed 0.5 percent by weight.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall maintain purchase receipts, vendor certifications, or other records to demonstrate that all fuel purchased for this source meets the requirements of this condition. These records shall be made available to the Technical Secretary or a Division representative upon request. These records must be maintained for a period of at least five (5) years from the purchase date.

E3-9. For fee purposes, the permittee shall record the amount of natural gas and No. 2 fuel oil used on a monthly basis and calculate actual emissions of particulate matter (PM), sulfur dioxide (SO_2), nitrogen oxides (NO_X), and volatile organic compounds (VOC).

TAPCR 1200-03-26-.02(9)(b)

Compliance Method: The permittee shall utilize the following logs (or similar logs that include the same required information) for the calculation of emissions from plant wide fuel combustion. These emissions shall be calculated from the emission factors provided in Tables 1.3-1, 1.3-2, 1.4-1, and 1.4-2 of EPA AP-42, 5th Edition. (Attachment 2)

MONTHLY FUEL USAGE LOG FOR FEE PURPOSES

MONTH/YEAR	Natural Gas Usage (standard cubic feet (scf) per month)	#2 Fuel Oil Usage (gallon per month)	Sulfur Content of No. 2 Fuel Oil (weight %)

ANNUAL EMISSIONS LOG (FOR FEE ACCOUNTING PERIOD OF JULY 1, 2019 TO JUNE 30, 2020)

Month/Year*	PM (ton per year)	SO_2 (tons per year)	NOx (tons per year)	VOCs (tons per year)
July, year				
Sum July/Year – June/Year+1				

* The Annual Accounting Period (AAP) is from July 1 to June 30 of the following year.

ANNUAL EMISSIONS CALCULATIONS FOR NATURAL GAS COMBUSTION:

PM emissions, tons per year = (annual gas usage, millions of cubic feet) (7.6 pounds per million cubic feet) / (2000 pounds/ton)
SO_2 emissions, tons per year = (annual gas usage, millions of cubic feet) (0.6 pounds per million cubic feet) / (2000 pounds/ton)
VOC emissions, tons per year = (annual gas usage, millions of cubic feet) (5.5 pounds per million cubic feet) / (2000 pounds/ton)
NOx emissions, tons per year = (annual gas usage, millions of cubic feet) (100 pounds per million cubic feet) / (2000 pounds/ton)

ANNUAL EMISSIONS CALCULATIONS FOR #2 FUEL OIL COMBUSTION:

Particulate emissions, tons per year = (annual #2 fuel oil usage, gallons) (2 pounds per 1000 gallon #2 Fuel Oil) (2000 pounds/ton)
SO_2 emissions, tons per year = (annual #2 fuel oil usage, gallons) (142 x S*pounds per 1000 gallon #2 Fuel Oil) (2000 pounds/ton)
VOC emissions, tons per year = (annual #2 fuel oil usage, gallons) (0.34 pounds per 1000 gallon #2 Fuel Oil) (2000 pounds/ton)
NOx emissions, tons per year = (annual #2 fuel oil usage, gallons) (20 pounds per 1000 gallon #2 Fuel Oil) (2000 pounds/ton)
* S = fuel sulfur content by weight percent

E3-10. **CAM Plan.** This facility has requested throughput limits to avoid CAM applicability.

92-0020-01 (NSPS)	**98-63 Milling System**	63 Hammer Mill has a rated input capacity of 18 tons per hour of clay. Process equipment includes two open conveyors, two hoppers, a 6.3 MMBtu/hr dryer, and a cyclone controlled by a baghouse. This source is subject to NSPS – 40 CFR 60, Subpart OOO

Conditions E4-1 thru E4-6 apply to source 92-0020-01.

E4-1. The maximum throughput for this source shall not exceed 18 tons per hour on a daily average basis.

TAPCR 1200-03-09-.02(11) and the application dated March 26, 2018

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E4-3** (Log 1).

E4-2. Only natural gas and No. 2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E4-3. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.91 pounds per hour). This limit is lower than the applicable limit of 0.022 grain per dry standard cubic feet specified at 40 CFR §60.672(a).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log when the source is in operation; days when the source is not in operation shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a daily basis. The required data shall be recorded in Log 1 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 1 MONTHLY LOG SOURCE: 92-0020-01 MONTH/YEAR:_____

Date	Throughput (Tons)	Hours Of Operation	Throughput rate (tons/hr)	PM emissions (pounds per day)
1				
2				
Etc.				
Sum				

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2.
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E4-4. Visible emissions from the baghouse that controls this source shall not exhibit greater than seven percent (7%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

40 CFR §60.672, Table 2 to Subpart OOO of Part 60, and TAPCR 1200-03-09-.03(8)

Compliance Method: Compliance with this opacity limitation shall be certified through utilization of the Division's Opacity Matrix dated June 18, 1996 and amended September 12, 2005 using EPA Method 9 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E4-5. Fugitive emissions from the mill shall not exceed 15% opacity and fugitive emissions from the classifier, hoppers, and conveyors shall not exceed 10% opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the 40 CFR 60, Appendix A.

40 CFR §60.672, Table 3 to Subpart OOO of Part 60, and TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, and amended September 12, 2005 that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E4-6. Sulfur dioxide (SO_2) emitted from this source shall not exceed 4.0 pounds per hour.

TAPCR 1200-03-14-.03(5)

Compliance Method: Compliance with this emission limit shall be assured by compliance with Condition E4-2.

92-0020-02	**200 Milling System**	53 Hammer Mill has a rated capacity of 6 tons per hour of clay. Process equipment includes 4.4 MMBtu/hr dryer and a cyclone controlled by a baghouse. **(Non-NSPS, installed prior to 1970)**

Conditions E5-1 thru E5-4 apply to source 92-0020-02.

E5-1. The process input rate for this source shall not exceed 6 tons per hour on a daily average basis.

TAPCR 1200-03-09-.02(11) and the application dated March 26, 2018

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E5-3** (Log 2).

E5-2. Only natural gas and No. 2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E5-3. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.03 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log when this source is in operation; days when the source is not in operation shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a daily basis. The required data shall be recorded in Log 2 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 2 MONTHLY LOG SOURCE: 92-0020-02 MONTH/YEAR:_____

Date	Throughput (Tons)	Hours Of Operation	Throughput rate (tons/hr)	PM emissions (pounds per day)
1				
2				
Etc.				
Sum				

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2.
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E5-4. Sulfur dioxide emitted from this source shall not exceed 3.0 pounds per hour.

TAPCR 1200-03-14-.01(3) and the agreement letter dated February 2, 2007.

Compliance Method: Compliance with this emission limit shall be assured by compliance with **Condition E5-2**.

92-0020-03	**100 Milling System**	63 Hammer Mill has a rated capacity of 12 tons per hour of clay. Process equipment includes a 8.8 MM BTU per hour dryer and a cyclone controlled by a baghouse. **(Non-NSPS, installed prior to 1970)**

Conditions E6-1 thru E6-4 apply to source 92-0020-03.

E6-1. The maximum throughput rate for the source shall not exceed 12 tons per hour on a daily average basis.

TAPCR 1200-03-09-.02(11) and the application dated March 26, 2018

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E6-3** (Log 3).

E6-2. Only natural gas and No.2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E6-3. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.91 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log; days when the source is not in operation shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a daily basis. The required data shall be recorded in Log 3 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 3 MONTHLY LOG SOURCE: 92-0020-03 MONTH/YEAR:_____

Date	Throughput (Tons)	Hours Of Operation	Throughput rate (tons/hr)	PM emissions (pounds per day)
1				
2				
Etc.				
Sum				

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E6-4. Sulfur dioxide emitted from this source shall not exceed 4.5 pounds per hour.

TAPCR 1200-03-14-.01(3) and the agreement letter dated February 2, 2007.

Compliance Method: Compliance with this emission limit shall be assured by compliance with **Condition E6-2**.

92-0020-04	**Bagger**	Bagger system has a capacity of 24 tons per hour of clay and includes a settling chamber controlled by two baghouses in parallel. **(Non-NSPS, installed prior to 1970)**

Condition E7-1 applies to source 92-0020-04.

E7-1. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.24 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log; days when the source is not operating shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

For fee purposes, the permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a monthly basis. The required data shall be recorded in Log 4 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 4 MONTHLY LOG SOURCE: 92-0020-04

Month	Throughput (Tons per month)	PM Emissions (pounds per month)

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per month) = monthly input (tons/mo) x 1.848 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.12-2 (1/95), enclosed as Attachment 2
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

92-0020-05 (NSPS)	**66 Fluidized Bed Dryer System**	Fluidized Bed Dryer has a rated input capacity of 30 tons per hour of clay. Process equipment includes a 13.7 MMBtu per hour furnace, and a settling chamber controlled by a baghouse. The furnace is fueled by natural gas or diesel fuel. This source is subject to NSPS – 40 CFR 60, Subpart UUU

Conditions E8-1 thru E8-5 apply to source 92-0020-05.

E8-1. The maximum throughput rate for this source shall not exceed 166,500 tons per year.

TAPCR 1200-03-09-.02(11) and the agreement letter from the permittee dated July 11, 2019. This limit was taken to avoid CAM applicability.

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E8-3** (Log 5).

E8-2. Only natural gas and No.2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E8-3. Particulate matter (PM) emitted from this source shall not exceed 0.017 grains per dry standard cubic feet (5.62 pounds per hour).

TAPCR 1200-03-07-.01(5), and the agreement letter dated May 24, 2013. This limit is lower than the applicable limit of 0.025 grain per dry standard cubic feet specified at 40 CFR §60.732(b).

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log when the source is in operation; days when the source is not in operation shall be noted. The logs

must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the average throughput rate and PM emissions on a daily basis. The permittee shall also determine the total monthly throughput and total throughput during each period of 12 consecutive months. The required data shall be recorded in Log 5 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 5 MONTHLY LOG SOURCE: 92-0020-05 MONTH/YEAR:_____

Date	Throughput (Tons)	Hours Of Operation	Throughput Rate (tons/hr)	PM Emissions (pounds per day)
1				
2				
Etc.				
Sum				

Total PM Emissions - _____ Tons per month

Total throughput - _____ Tons per month

Total Annual Throughput - _____ Tons per 12 consecutive months

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E8-4. Visible emissions from the baghouse that controls this source shall not exhibit greater than ten percent (10%) opacity except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the 40 CFR 60, Appendix A. (6 minute average).

40 CFR §60.732 and TAPCR 1200-03-09-.03(8)

Compliance Method: Pursuant to §60.734(b), the permittee shall measure and record three (3) 6-minute averages of the opacity of visible emissions to the atmosphere each day the source is in operation. On days when this source does not operate visible emissions readings are not required; such days shall be noted. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). The visible emissions readings shall be recorded once daily in the following log when the source is in operation. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	Visible Emissions (opacity %)	Operator Initials

E8-5. Sulfur dioxide emitted from this source shall not exceed 6.95 pounds per hour.

TAPCR 1200-03-14-.01(3) and Construction Permit #965097P, issued March 19, 2012.

Compliance Method: Compliance with this emission limit shall be assured by compliance with **Condition E8-2**.

92-0020-06 (old 05)	**66 Roller Mill System with Silos and Loadout**	Clay is received from the Fluidized Bed Drier and processed through the 66 Mill with a rated capacity of 30 tons per hour of clay and 18.3 MMBtu per hour dryer. Process equipment includes a cyclone controlled by a baghouse. The dryer is fueled by natural gas or diesel fuel. **(Non-NSPS, installed in 1977)**

Conditions E9-1 thru E9-4 apply to source 92-0020-06

E9-1. The maximum throughput rate for the source shall not exceed 166,500 tons/year.

TAPCR 1200-03-09-.02(11) and the agreement letter from the permittee dated July 11, 2019. This limit was taken to avoid CAM applicability.

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E9-3** (Log 6).

E9-2. Only natural gas and No.2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E9-3. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.85 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water pressure drop across the baghouse. The pressure drop shall be recorded once daily in the following log when the source is in operation; days when the source is not in operation shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the average throughput rate and PM emissions on a daily basis. The permittee shall also determine the total monthly throughput and total throughput during each period of 12 consecutive months. The required data shall be recorded in Log 6 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 6 MONTHLY LOG SOURCE: 92-0020-06 MONTH/YEAR:_____

Date	Throughput (Tons)	Hours Of Operation	Throughput Rate (tons/hr)	PM Emissions (pounds per day)
1				
2				
Etc.				

Sum				

Total PM Emissions - _____ Tons per month

Total throughput - _____ Tons per month

Total Annual Throughput - _____ Tons per 12 consecutive months

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E9-4. Sulfur dioxide emitted from this source shall not exceed 9.0 pounds per hour.

TAPCR 1200-03-14-.01(3) and the agreement letter dated February 2, 2007.

Compliance Method: Compliance with this emission limit shall be assured by compliance with **Condition E9-2**.

92-0020-07	**Truck Tanks 1 through 7 and Super Sack Loading**	Six Truck Tanks (1 - 6) with three baghouses. Truck Tank 7 and Supersac loading controlled by a baghouse. Each tank has a rated capacity of 24 tons per hour. Truck Tanks 1 and 2 with baghouse (Non-NSPS), 3 and 4 with baghouse (NSPS), 5 and 6 with baghouse (NSPS), and Truck Tank 7 and Supersack Loadout (Non-NSPS)

Conditions E10-1 thru E10-5 apply to source 92-0020-07.

E10-1. Particulate matter (PM) emitted from Truck Tanks 1 through 6 shall not exceed 0.02 grains per dry standard cubic feet (1.32 pounds per hour). Tanks 3-6 are subject to 40 CFR 60 Subpart OOO. This limit is lower than the applicable limit of 0.022 grain per dry standard cubic feet specified at 40 CFR §60.672(a).

TAPCR 1200-03-07-.01(5) and the agreement letter from permittee dated July 10, 2019

Compliance Method: The permittee shall keep all baghouses maintained, in good operating condition, and inspected semiannually to ensure compliance with the applicable particulate matter limits. Documentation of the semiannual inspections and any maintenance performed will be kept on site for a period of not less than five (5) years. A summary of these logs shall be kept and reported in accordance with Condition **E2**.

E10-2. Particulate matter (PM) emitted from Truck Tank 7 and the Supersac loading system shall not exceed 0.02 grains per dry standard cubic foot (0.62 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log when the source is in operation; days when the source is not in operation shall be noted. The logs

must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

E10-3. Visible emissions from the baghouses controlling Truck Tanks 3 and 4 and Truck Tanks 5 and 6 shall not exhibit greater than seven percent (7%) opacity, except for one (1) six-minute period in any one (1 hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average).

40 CFR §60.672, Table 2 to Subpart OOO of Part 60, and TAPCR 1200-03-09-.03(8)

Visible emissions from the baghouses controlling Truck Tanks 1 and 2 and Truck Tank 7 and Supersac Loadout shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six minute average).

TAPCR 1200-03-05-.03(6) and 1200-03-05-.01(1)

Compliance Method: The permittee shall assure compliance with these opacity standards by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

E10-4. Fugitive emissions from Truck Tanks 3, 4, 5, and 6 shall not exceed 10% opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six minute average).

40 CFR §60.672(b), Table 3 to Subpart OOO of Part 60, and TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

E10-5. For fee purposes, the permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a monthly basis. The required data shall be recorded in Log 7 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 7 MONTHLY LOG SOURCE: 92-0020-07

Month	Throughput (tons)	PM Emissions (pounds per month)

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

Silo/ Truck PM emissions (pounds per month) =monthly input x 1.848 lb. PM/ton* x [1 - baghouse efficiency]

*AP-42 Table 11.12-2 (06/06), enclosed as Attachment 2

Baghouse efficiency is 0.997. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

92-0020-08	**300 Milling System**	53 Hammer Mill has a rated capacity of 6 tons per hour of clay. Process equipment includes a cyclone controlled by a baghouse, and 4.4 MMBtu per hour dryer. The dryer is fueled by natural gas or diesel fuel. **(Non-NSPS, Installed prior to 1970)**

Conditions E11-1 and E11-4 apply to source 92-0020-08

E11-1. The maximum throughput rate for this source shall not exceed 6 tons per hour on a daily average basis.

TAPCR 1200-03-09-.02(11) and the application dated March 26, 2018

Compliance Method: Compliance with this operating limitation shall be demonstrated by the recordkeeping required by **Condition E11-3** (Log 8).

E11-2. Only natural gas and No.2 fuel oil shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

Compliance Method: The permittee shall annually certify compliance with this operating requirement.

E11-3. Particulate matter (PM) emitted from this source shall not exceed 0.02 grains per dry standard cubic feet (1.11 pounds per hour).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: Compliance with this emission limitation shall be assured by maintaining a minimum pressure drop of 2.0 inches of water across the baghouse. The pressure drop shall be recorded once daily in the following log when this source is in operation; days when the source is not in operation shall be noted. The logs must be retained for a period of not less than five years. Reports and certifications shall be submitted in accordance with Condition E2 of this permit.

DATE	PRESSURE DROP (inches of water)	Operator initials

The permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a daily basis. The required data shall be recorded in Log 8 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 8 Monthly Log Source 92-0020-08 **Month/year _____**

Date	Throughput (tons)	Hours Of Operation	Throughput Rate (tons/hr)	PM Emissions (pounds per day)
1				
2				
Etc.				
Sum				

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per day) = daily input (tons/day) x 1.20 lb. PM/ton* x [1 – baghouse efficiency]

*AP-42, Table 11.25-3 (1/95), enclosed as Attachment 2
Baghouse efficiency is 0.98. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E11-4. Sulfur dioxide emitted from this source shall not exceed 3.0 pounds per hour.

TAPCR 1200-03-14-.01(3) and the agreement letter dated February 2, 2007

Compliance Method: Compliance with this emission limit shall be assured by compliance with **Condition E11-2**.

92-0020-09	**Silo 1, 2, 3, 66 Truck Tank for Truck/Rail Loadout**	Silo 1 (1,357 acfm), 2 (1,357 acfm) and 3 (1,104 acfm) are controlled by individual baghouses. 66 Truck tank controlled by a baghouse. The rated capacity of each silo and the truck tank is 25 tons per hour, each. Silo 3 and 66 Truck Tank are subject to 40 CFR 60 Subpart OOO.

Conditions E12-1 and E12-2 apply to source 92-0020-09.

E12-1. Particulate matter (PM) emissions from Silo 1 baghouse, Silo 2 baghouse, Silo 3 baghouse and the 66 truck tank baghouse shall not exceed 0.02 grains per dry standard cubic foot as specified in 40 CFR Part 60.672(a) (Subpart OOO). PM emissions from Silo 3 and 66 Truck Tank are subject to 40 CFR 60 Subpart OOO. This limit is lower than the applicable limit of 0.022 grain per dry standard cubic feet specified at 40 CFR §60.672(a).

TAPCR 1200-03-07-.01(5) and the agreement letter from the permittee dated July 10, 2019

Compliance Method: The permittee shall keep all baghouses maintained, in good operating condition, and inspected semiannually to ensure compliance with the applicable particulate matter limits. Documentation of the semiannual inspections and any maintenance performed will be kept on site for a period of not less than five (5) years. A summary of these logs shall be kept and reported in accordance with Condition **E2**.

For fee purposes, the permittee shall record throughput and hours of operation and calculate the throughput rate and PM emissions on a monthly basis. The required data shall be recorded in Log 9 (or a similar log that contains the same required information). The logs shall be maintained in accordance with **Condition E3-6**.

LOG 9 MONTHLY LOG SOURCE: 92-0020-09

Month	Throughput (tons per month)	PM Emissions (pounds per month)

Total PM Emissions - _____ Tons per month

PM Emissions shall be calculated with the following equation:

PM emissions (pounds per month) = monthly input (tons/mo) x 1.86 lb. PM/ton* x [1 – baghouse efficiency]

* AP-42 Table 11.12-2 (06/06), enclosed as Attachment 2
Baghouse efficiency is 0.997. Per letter dated 3/10/2006 by the company, enclosed as Attachment 3.

E12-2. Visible emissions from the baghouses controlling Silo 3 the 66 Truck Tank shall not exhibit greater than seven percent (7%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average).

40 CFR §60.672, Table 2 to Subpart OOO of Part 60, and TAPCR 1200-03-09-.03(8)

Visible emissions from the baghouses controlling Silo 1 and Silo 2 shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period, and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (6 minute average).

TAPCR 1200-03-05-.03(6) & 05-.01(1)

Compliance Method: The permittee shall assure compliance with these opacity standards by utilizing the opacity matrix dated June 18, 1996 and amended September 11, 2013, that is enclosed as Attachment 1.

If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

END OF PERMIT NUMBER: 573982

ATTACHMENT 1

OPACITY MATRIX DECISION TREE for VISIBLE EMISSION EVALUATION METHOD 9 dated June 18, 1996 and amended September 11, 2013

Decision Tree PM for Opacity for
Sources Utilizing EPA Method 9*

Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO_2, NO_x, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

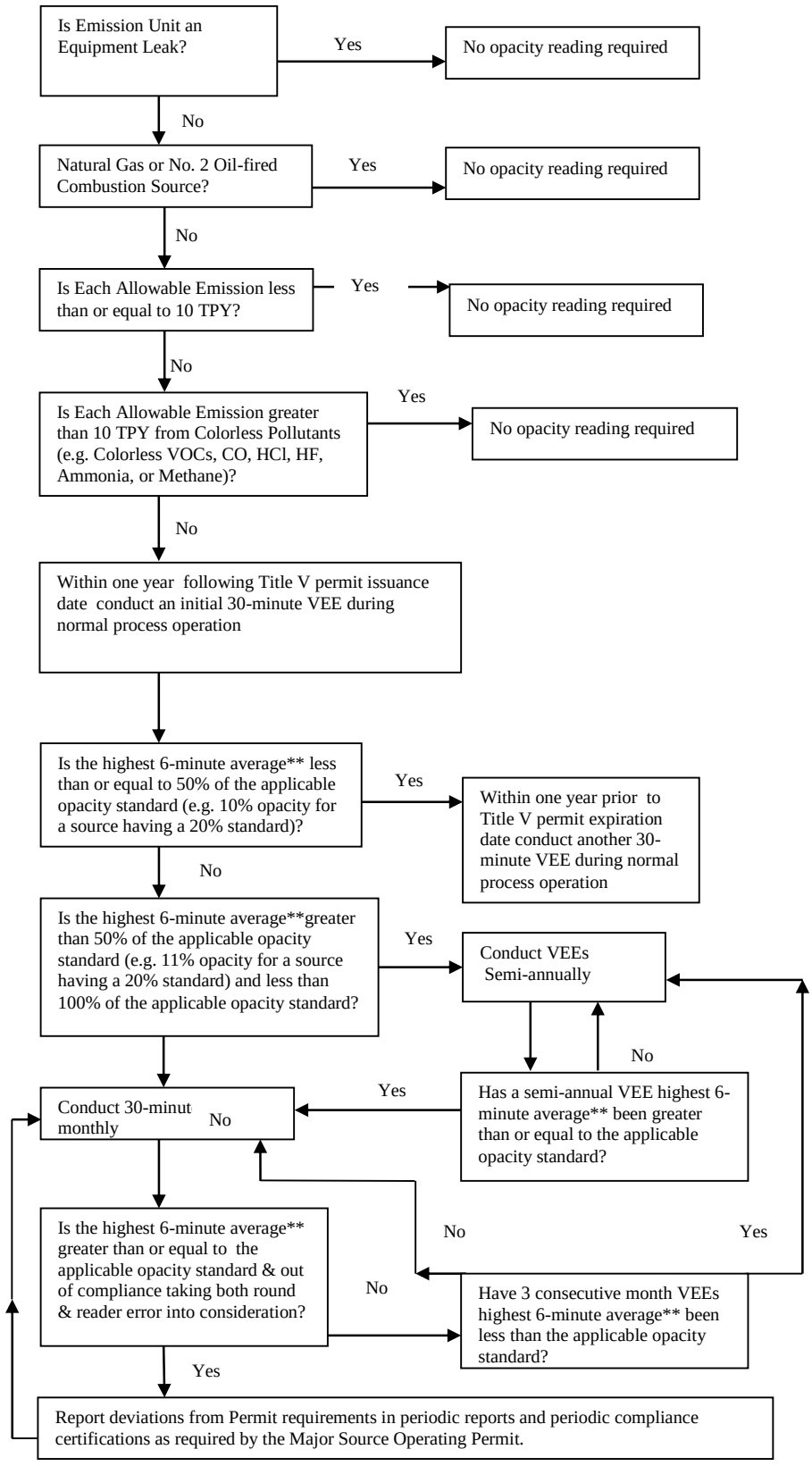
Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards:
The TAPCD guidance is to declares non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards:
EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013



ATTACHMENT 2

AP-42 Fifth Edition Tables for Crushed Stone Processing and Pulverized Mineral Processing and Talc Processing Emission Factors

Table 11.25-3 (English Units). EMISSION FACTORS FOR KAOLIN PROCESSING[a]

EMISSION FACTOR RATING: D

Source	Filterable PM[b]	Filterable PM-10[c]	CO_2
Spray dryer with fabric filter (SCC 3-05-041-31)	0.23[d]	ND	160[e]
Apron dryer (SCC 3-05-041-32)	1.2[f]	ND	280[f]
Multiple hearth furnace (SCC 3-05-041-40)	34[g]	16[g]	280[g]
Multiple hearth furnace with venturi scrubber (SCC 3-05-041-40)	0.23[g]	ND	NA
Flash calciner (SCC 3-05-041-42)	1,100[g]	560[g]	510[g]
Flash calciner with fabric filter (SCC 3-05-041-42)	0.055[g]	0.046[g]	NA

[a] Factors are kg/Mg produced. Emissions are uncontrolled, unless noted. SCC = Source Classification Code. ND = no data. NA = not applicable, control device has negligible effects on CO_2 emissions.

[b] Filterable PM is that PM collected on or before the filter of an EPA Method 5 (or equivalent) sampling train.

[c] Based on filterable PM emission factor and particle size data.

[d] References 3,5.

[e] Reference 5.

[f] Reference 6.

[g] Reference 8.

References For Section 11.25

1. S. H. Patterson and H. H. Murray, "Clays", *Industrial Minerals And Rocks, Volume 1*, Society Of Mining Engineers, New York, 1983.

2. R. L. Virta, *Annual Report 1991: Clays (Draft)*, Bureau Of Mines, U. S. Department Of The Interior, Washington, DC, September 1992.

3. *Calciners And Dryers In Mineral Industries - Background Information For Proposed Standards*, EPA-450/3-85-025a, U. S. Environmental Protection Agency, Research Triangle Park, NC, October 1985.

4. J. T. Jones and M. F. Berard, *Ceramics, Industrial Processing And Testing*, Iowa State University Press, Ames, IA, 1972.

5. *Report On Particulate Emissions From No. 3 Spray Dryer, American Industrial Clay Company, Sandersonville, Georgia*, July 21, 1975.

6. *Report On Particulate Emissions From Apron Dryer, American Industrial Clay Company, Sandersonville, Georgia*, July 21, 1975.

7. *Emission Test Report: Thiele Kaolin, Sandersonville, Georgia,* EMB-78-NMM-7, Emission Measurement Branch, U. S. Environmental Protection Agency, Research Triangle Park, NC, March 1979.

8. *Emission Test Report: Plant A*, ESD Project No. 81/08, U. S. Environmental Protection Agency, Research Triangle Park, NC, October 1983.

9. *Source Test Report, Plant B, Kiln Number 2 Outlet*, Technical Services, Inc., Jacksonville, FL, February 1979.

10. *Source Test Report, Plant B, Number 1 Kiln Outlet Particulate Emissions*, Technical Services, Inc., Jacksonville, FL, February 1979.

11. *Calciners And Dryers Emission Test Report, North American Refractories Company, Farber, Missouri*, EMB - 84-CDR-14, Emission Measurement Branch, U. S. Environmental Protection Agency, Research Triangle Park, NC, March 1984.

12. *Emission Test Report: Plant A*, ESD Project No. 81/08, U. S. Environmental Protection Agency, Research Triangle Park, NC, June 13, 1983.

13. *Calciners And Dryers Emission Test Report, A. P. Green Company, Mexico, Missouri*, EMB-83-CDR-1, Emission Measurement Branch, U. S. Environmental Protection Agency, Research Triangle Park, NC, October 1983.

ATTACHMENT 2

AP-42 Fifth Edition Tables for Concrete Batching Emission Factors

TABLE 11.12-2 (ENGLISH UNITS)
EMISSION FACTORS FOR CONCRETE BATCHING [a]

Source (SCC)	Uncontrolled				Controlled			
	Total PM	Emission Factor Rating	Total PM_{10}	Emission Factor Rating	Total PM	Emission Factor Rating	Total PM_{10}	Emission Factor Rating
Aggregate transfer [b] (3-05-011-04,-21,23)	0.0069	D	0.0033	D	ND		ND	
Sand transfer [b] (3-05-011-05,22,24)	0.0021	D	0.00099	D	ND		ND	
Cement unloading to elevated storage silo (pneumatic)[c] (3-05-011-07)	0.73	E	0.47	E	0.00099	D	0.00034	D
Cement supplement unloading to elevated storage silo (pneumatic)[d] (3-05-011-17)	3.14	E	1.10	E	0.0089	D	0.0049	E
Weigh hopper loading [e] (3-05-011-08)	0.0048	D	0.0028	D	ND		ND	
Mixer loading (central mix)[f] (3-05-011-09)	0.572 or Eqn. 11.12-1	B	0.156 or Eqn. 11.12-1	B	0.0184 or Eqn. 11.12-1	B	0.0055 or Eqn. 11.12-1	B
Truck loading (truck mix)[g] (3-05-011-10)	1.118	B	0.310	B	0.098 or Eqn. 11.12-1	B	0.0263 or Eqn. 11.12-1	B
Vehicle traffic (paved roads)	See AP-42 Section 13.2.1, Paved Roads							
Vehicle traffic (unpaved roads)	See AP-42 Section 13.2.2, Unpaved Roads							
Wind erosion from aggregate and sand storage piles	See AP-42 Section 13.2.5, Industrial Wind Erosion							

ND = No data

[a] All emission factors are in lb of pollutant per ton of material loaded unless noted otherwise. Loaded material includes course aggregate, sand, cement, cement supplement and the surface moisture associated with these materials. The average material composition of concrete batches presented in references 9 and 10 was 1865 lbs course aggregate, 1428 lbs sand, 491 lbs cement and 73 lbs cement supplement. Approximately 20 gallons of water was added to this solid material to produce 4024 lbs (one cubic yard) of concrete.

[b] Reference 9 and 10. Emission factors are based upon an equation from AP-42, section 13.2.4 Aggregate Handling And Storage Piles, equation 1 with k_{PM-10} =.35, k_{PM} = .74, U = 10mph, $M_{aggregate}$ =1.77%, and M_{sand} = 4.17%. These moisture contents of the materials ($M_{aggregate}$ and M_{sand}) are the averages of the values obtained from Reference 9 and Reference 10.

[c] The uncontrolled PM & PM-10 emission factors were developed from Reference 9. The controlled emission factor for PM was developed from References 9, 10, 11, and 12. The controlled emission factor for PM-10 was developed from References 9 and 10.

[d] The controlled PM emission factor was developed from Reference 10 and Reference 12, whereas the controlled PM-10 emission factor was developed from only Reference 10.

[e] Emission factors were developed by using the Aggregate and Sand Transfer Emission Factors in conjunction with the ratio of aggregate and sand used in an average yard^3 of concrete. The unit for these emission factors is lb of pollutant per ton of aggregate and sand.

[f] References 9, 10, and 14. The emission factor units are lb of pollutant per ton of cement and cement supplement. The general factor is the arithmetic mean of all test data.

[g] Reference 9, 10, and 14. The emission factor units are lb of pollutant per ton of cement and cement supplement. The general factor is the arithmetic mean of all test data.

ATTACHMENT 2

AP-42 FIFTH EDITION EMISSION FACTORS for

NATURAL GAS COMBUSTION

Table 1.4-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO_x) AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (MMBtu/hr Heat Input) [SCC]	NO_x[b]		CO	
	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
Large Wall-Fired Boilers (>100) [1-01-006-01, 1-02-006-01, 1-03-006-01]				
Uncontrolled (Pre-NSPS)[c]	280	A	84	B
Uncontrolled (Post-NSPS)[c]	190	A	84	B
Controlled - Low NO_x burners	140	A	84	B
Controlled - Flue gas recirculation	100	D	84	B
Small Boilers (<100) [1-01-006-02, 1-02-006-02, 1-03-006-02, 1-03-006-03]				
Uncontrolled	100	B	84	B
Controlled - Low NO_x burners	50	D	84	B
Controlled - Low NO_x burners/Flue gas recirculation	32	C	84	B
Tangential-Fired Boilers (All Sizes) [1-01-006-04]				
Uncontrolled	170	A	24	C
Controlled - Flue gas recirculation	76	D	98	D
Residential Furnaces (<0.3) [No SCC]				
Uncontrolled	94	B	40	B

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. Emission factors are based on an average natural gas higher heating value of 1,020 Btu/scf. To convert from $1b/10^6$ scf to lb/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. SCC = Source Classification Code. ND = no data. NA = not applicable.

[b] Expressed as NO_2. For large and small wall fired boilers with SNCR control, apply a 24 percent reduction to the appropriate NO_X emission factor. For tangential-fired boilers with SNCR control, apply a 13 percent reduction to the appropriate NO_X emission factor.

[c] NSPS=New Source Performance Standard as defined in 40 CFR 60 Subparts D and Db. Post-NSPS units are boilers with greater than 250 MMBtu/hr of heat input that commenced construction modification, or reconstruction after August 17, 1971, and units with heat input capacities between 100 and 250 MMBtu/hr that commenced construction modification, or reconstruction after June 19, 1984.

TABLE 1.4-2. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM NATURAL GAS COMBUSTION[a]

Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
CO_2[b]	120,000	A
Lead	0.0005	D
N_2O (Uncontrolled)	2.2	E
N_2O (Controlled-low-NO_X burner)	0.64	E
PM (Total)[c]	7.6	D
PM (Condensable)[c]	5.7	D
PM (Filterable)[c]	1.9	B
SO_2[d]	0.6	A
TOC	11	B
Methane	2.3	B
VOC	5.5	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $lb/10^6$ scf to 1b/MMBtu, divide by 1,020. The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. TOC = Total Organic Compounds. VOC = Volatile Organic Compounds.

[b] Based on approximately 100% conversion of fuel carbon to CO_2. $CO_2[lb/10^6 \text{ scf}] = (3.67)\ (CON)\ (C)(D)$, where CON = fractional conversion of fuel carbon to CO_2, C = carbon content of fuel by weight (0.76), and D = density of fuel, 4.2×10^4 $lb/10^6$ scf.

[c] All PM (total, condensible, and filterable) is assumed to be less than 1.0 micrometer in diameter. Therefore, the PM emission factors presented here may be used to estimate PM_{10}, $PM_{2.5}$ or PM_1 emissions. Total PM is the sum of the filterable PM and condensible PM. Condensible PM is the particulate matter collected using EPA Method 202 (or equivalent). Filterable PM is the particulate matter collected on, or prior to, the filter of an EPA Method 5 (or equivalent) sampling train.

[d] Based on 100% conversion of fuel sulfur to SO_2.

Assumes sulfur content is natural gas of 2,000 grains/10^6 scf. The SO_2 emission factor in this table can be converted to other natural gas sulfur contents by multiplying the SO_2 emission factor by the ratio of the site-specific sulfur content (grains/10^6 scf) to 2,000 grains/10^6 scf.

TABLE 1.4-3. EMISSION FACTORS FOR SPECIATED ORGANIC COMPOUNDS FROM NATURAL GAS COMBUSTION[a]

CAS No.	Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
91-57-6	2-Methylnaphthalene[b, c]	2.4E-05	D
56-49-5	3-Methylchloranthrene[b, c]	<1.8E-06	E
	7,12-Dimethylbenz(a)anthracene[b,c]	<1.6E-05	E
83-32-9	Acenaphthene[b,c]	<1.8E-06	E
203-96-8	Acenaphthylene[b,c]	<1.8E-06	E
120-12-7	Anthracene[b,c]	<2.4E-06	E
56-55-3	Benz(a)anthracene[b,c]	<1.8E-06	E
71-43-2	Benzene[b]	2.1E-03	B
50-32-8	Benzo(a)pyrene[b,c]	<1.2E-06	E
205-99-2	Benzo(b)fluoranthene[b,c]	<1.8E-06	E
191-24-2	Benzo(g,h,i)perylene[b,c]	<1.2E-06	E
205-82-3	Benzo(k)fluoranthene[b,c]	<1.8E-06	E
106-97-8	Butane	2.1E+00	E
218-01-9	Chrysene[b,c]	<1.8E-06	E
53-70-3	Dibenzo(a,h)anthracene[b,c]	<1.2E-06	E
25321-22-6	Dichlorobenzene[b]	1.2E-03	E
74-84-0	Ethane	3.1E+00	E
206-44-0	Fluoranthene[b,c]	3.0E-06	E
86-73-7	Fluorene[b,c]	2.8E-06	E
50-00-0	Formaldehyde[b]	7.5E-02	B
110-54-3	Hexane[b]	1.8E+00	E
193-39-5	Indeno(1,2,3-cd)pyrene[b,c]	<1.8E-06	E
91-20-3	Naphthalene[b]	6.1E-04	E
109-66-0	Pentane	2.6E+00	E
85-01-8	Phenanathrene[b,c]	1.7E-05	D
74-98-6	Propane	1.6E+00	E
129-00-0	Pyrene[b, c]	5.0E-06	E
108-88-3	Toluene[b]	3.4E-03	C

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by 16. To convert from $1b/10^6$ scf to lb/MMBtu, divide by 1,020. Emission Factors preceded with a less-than symbol are based on method detection limits.

[b] Hazardous Air Pollutant (HAP) as defined by 112(b) of the Clean Air Act.

[c] HAP because it is Polycyclic Organic Matter (POM). POM is a HAP as defined by 112(b) of the Clean Air Act.

[d] The sum of individual organic compounds may exceed the VOC and TOC emission factors due to differences in test methods and the availability of test data for each pollutant.

TABLE 1.4-4. EMISSION FACTORS FOR METALS FROM NATURAL GAS COMBUSTION[a]

CAS No.	Pollutant	Emission Factor ($lb/10^6$ scf)	Emission Factor Rating
7440-38-2	Arsenic[b]	2.0E-04	E
7440-39-3	Barium	4.4E-03	D
7440-41-7	Beryllium[b]	<1.2E-05	E
7440-43-9	Cadmium[b]	1.1E-03	D
7440-47-3	Chromium[b]	1.4E-03	D
7440-48-4	Cobalt[b]	8.4E-05	D
7440-50-8	Copper	8.5E-04	C
7439-96-5	Manganese[b]	3.8E-04	D
7439-97-6	Mercury[b]	2.6E-04	D
7439-98-7	Molybdenum	1.1E-03	D
7440-02-0	Nickel[b]	2.1E-03	C
7782-49-2	Selenium[b]	<2.4E-05	E
7440-62-2	Vanadium	2.3E-03	D
7440-66-6	Zinc	2.9E-02	E

[a] Reference 11. Units are in pounds of pollutant per million standard cubic feet of natural gas fired. Data are for all natural gas combustion sources. Emission factors preceded by a less-than symbol are based on method detection limits. To convert from $lb/10^6$ scf to $kg/10^6$ m^3, multiply by l6. To convert from $lb/10^6$ scf to 1b/MMBtu, divide by 1,020.

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Table 1.5-1. EMISSION FACTORS FOR LPG COMBUSTION[a]

EMISSION FACTOR RATING: E

Pollutant	Butane Emission Factor ($lb/10^3$ gal)		Propane Emission Factor ($lb/10^3$ gal)	
	Industrial Boilers[b] (SCC 1-02-010-01)	Commercial Boilers[c] (SCC 1-03-010-01)	Industrial Boilers[b] (SCC 1-02-010-02)	Commercial Boilers[c] (SCC 1-03-010-02)
PM, Filterable [d]	0.2	0.2	0.2	0.2
PM, Condensable	0.6	0.6	0.5	0.5
PM, Total	0.8	0.8	0.7	0.7
SO_2[e]	0.09S	0.09S	0.10S	0.10S
NO_x[f]	15	15	13	13
N_2O[g]	0.9	0.9	0.9	0.9
CO_2[h,j]	14,300	14,300	12,500	12,500
CO	8.4	8.4	7.5	7.5
TOC	1.1	1.1	1.0	1.0
CH_4[k]	0.2	0.2	0.2	0.2

[a] Assumes PM, CO, and TOC emissions are the same, on a heat input basis, as for natural gas combustion. Use heat contents of 91.5 x 10^6 Btu/10^3 gallon for propane, 102 x 10^6 Btu/10^3 gallon for butane, 1020 x 10^6 Btu/10^6 scf for methane when calculating an equivalent heat input basis. For example, the equation for converting from methane's emissions factors to propane's emissions factors is as follows: lb pollutant/10^3 gallons of propane = (lb pollutant /10^6 ft^3 methane) * (91.5 x 10^6 Btu/10^3 gallons of propane) / (1020 x 10^6 Btu/10^6 scf of methane). The NO_x emission factors have been multiplied by a correction factor of 1.5, which is the approximate ratio of propane/butane NO_x emissions to natural gas NO_x emissions. To convert from lb/10^3 gal to kg/10^3 L, multiply by 0.12. SCC = Source Classification Code.

[b] Heat input capacities generally between 10 and 100 million Btu/hour.

[c] Heat input capacities generally between 0.3 and 10 million Btu/hour.

[d] Filterable particulate matter (PM) is that PM collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train. For natural gas, a fuel with similar combustion characteristics, all PM is less than 10 μm in aerodynamic equivalent diameter (PM-10).

[e] S equals the sulfur content expressed in gr/100 ft^3 gas vapor. For example, if the butane sulfur content is 0.18 gr/100 ft^3, the emission factor would be (0.09 x 0.18) = 0.016 lb of SO_2/10^3 gal butane burned.

[f] Expressed as NO_2.

[g] Reference 12.

[h] Assuming 99.5% conversion of fuel carbon to CO_2.

[j] EMISSION FACTOR RATING = C.

[k] Reference 13.

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ATTACHMENT 2

AP-42 FIFTH EDITION EMISSION FACTORS for

FUEL OIL COMBUSTION

Table 1.3-1. CRITERIA POLLUTANT EMISSION FACTORS FOR FUEL OIL COMBUSTION[a]

Firing Configuration (SCC)[a]	SO_2[b]		SO_3[c]		NO_x[d]		CO[e]		Filterable PM[f]	
	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING	Emission Factor ($lb/10^3$ gal)	EMISSION FACTOR RATING
Boilers > 100 Million Btu/hr										
No. 6 oil fired, normal firing (1-01-004-01), (1-02-004-01), (1-03-004-01)	157S	A	5.7S	C	47	A	5	A	9.19(S)+3.22	A
No. 6 oil fired, normal firing, low NO_x burner (1-01-004-01), (1-02-004-01)	157S	A	5.7S	C	40	B	5	A	9.19(S)+3.22	A
No. 6 oil fired, tangential firing, (1-01-004-04)	157S	A	5.7S	C	32	A	5	A	9.19(S)+3.22	A
No. 6 oil fired, tangential firing, low NO_x burner (1-01-004-04)	157S	A	5.7S	C	26	E	5	A	9.19(S)+3.22	A
No. 5 oil fired, normal firing (1-01-004-05), (1-02-004-04)	157S	A	5.7S	C	47	B	5	A	10	B
No. 5 oil fired, tangential firing (1-01-004-06)	157S	A	5.7S	C	32	B	5	A	10	B
No. 4 oil fired, normal firing (1-01-005-04), (1-02-005-04)	150S	A	5.7S	C	47	B	5	A	7	B
No. 4 oil fired, tangential firing (1-01-005-05)	150S	A	5.7S	C	32	B	5	A	7	B
No. 2 oil fired (1-01-005-01), (1-02-005-01), (1-03-005-01)	142S[h]	A	5.7S	C	24	D	5	A	2	A
No.2 oil fired, LNB/FGR (1-01-005-01), (1-02-005-01), (1-03-005-01)	142S[h]	A	5.7S	A	10	D	5	A	2	A

Table 1.3-1. (cont.)

Firing Configuration (SCC)[a]	SO_2[b]		SO_3[c]		NO_x[d]		CO[e]		Filterable PM[f]	
	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING
Boilers < 100 Million Btu/hr										
No. 6 oil fired (1-02-004-02/03) (1-03-004-02/03)	157S	A	2S	A	55	A	5	A	9.19(S)+3.22[i]	B
No. 5 oil fired (1-03-004-04)	157S	A	2S	A	55	A	5	A	10[i]	A
No. 4 oil fired (1-03-005-04)	150S	A	2S	A	20	A	5	A	7	B
Distillate oil fired (1-02-005-02/03) (1-03-005-02/03)	142S	A	2S	A	20	A	5	A	2	A
Residential furnace (A2104004/A2104011)	142S	A	2S	A	18	A	5	A	0.4[g]	B

a To convert from lb/103 gal to kg/103 L, multiply by 0.120. SCC = Source Classification Code.
b References 1-2,6-9,14,56-60. S indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.
c References 1-2,6-8,16,57-60. S indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example, if the fuel is 1% sulfur, then S = 1.
d References 6-7,15,19,22,56-62. Expressed as NO2. Test results indicate that at least 95% by weight of NOx is NO for all boiler types except residential furnaces, where about 75% is NO. For utility vertical fired boilers use 105 lb/103 gal at full load and normal (>15%) excess air. Nitrogen oxides emissions from residual oil combustion in industrial and commercial boilers are related to fuel nitrogen content, estimated by the following empirical relationship: lb NO2 /103 gal = 20.54 + 104.39(N), where N is the weight % of nitrogen in the oil. For example, if the fuel is 1% nitrogen, then N = 1.
e References 6-8,14,17-19,56-61. CO emissions may increase by factors of 10 to 100 if the unit is improperly operated or not well maintained.
f References 6-8,10,13-15,56-60,62-63. Filterable PM is that particulate collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train. Particulate emission factors for residual oil combustion are, on average, a function of fuel oil sulfur content where S is the weight % of sulfur in oil. For example, if fuel oil is 1% sulfur, then S = 1.
g Based on data from new burner designs. Pre-1970's burner designs may emit filterable PM as high as 3.0 lb/103 gal.
h The SO2 emission factor for both no. 2 oil fired and for no. 2 oil fired with LNB/FGR, is 142S, not 157S. Errata dated April 28, 2000. Section corrected May 2010.
i The PM factors for No.6 and No. 5 fuel were reversed. Errata dated April 28, 2000. Section corrected May 2010.

Table 1.3-2. CONDENSABLE PARTICULATE MATTER EMISSION FACTORS FOR OIL COMBUSTION[a]

Firing Configuration[b] (SCC)	Controls	CPM - TOT[c, d]		CPM - IOR[c, d]		CPM - ORG[c, d]	
		Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING	Emission Factor (lb/10^3 gal)	EMISSION FACTOR RATING
No. 2 oil fired (1-01-005-01, 1-02-005-01, 1-03-005-01)	All controls, or uncontrolled	1.3[d, e]	D	65% of CPM-TOT emission factor[c]	D	35% of CPM-TOT emission factor[c]	D
No. 6 oil fired (1-01-004-01/04, 1-02-004-01, 1-03-004-01)	All controls, or uncontrolled	1.5[f]	D	85% of CPM-TOT emission factor[d]	E	15% of CPM-TOT emission factor[d]	E

[a] All condensable PM is assumed to be less than 1.0 micron in diameter.
[b] No data are available for numbers 3, 4, and 5 oil. For number 3 oil, use the factors provided for number 2 oil. For numbers 4 and 5 oil, use the factors provided for number 6 oil.
[c] CPM-TOT = total condensable particulate matter.
CPM-IOR = inorganic condensable particulate matter.
CPM-ORG = organic condensable particulate matter.
[d] To convert to lb/MMBtu of No. 2 oil, divide by 140 MMBtu/10^3 gal. To convert to lb/MMBtu of No. 6 oil, divide by 150 MMBtu/10^3 gal.
[e] References: 76-78.
[f] References: 79-82.

Table 1.3-3. EMISSION FACTORS FOR TOTAL ORGANIC COMPOUNDS (TOC), METHANE, AND NONMETHANE TOC (NMTOC) FROM UNCONTROLLED FUEL OIL COMBUSTION[a]

EMISSION FACTOR RATING: A

Firing Configuration (SCC)	TOC[b] Emission Factor ($lb/10^3$ gal)	Methane[b] Emission Factor ($lb/10^3$ gal)	NMTOC[b] Emission Factor ($lb/10^3$ gal)
Utility boilers			
No. 6 oil fired, normal firing (1-01-004-01)	1.04	0.28	0.76
No. 6 oil fired, tangential firing (1-01-004-04)	1.04	0.28	0.76
No. 5 oil fired, normal firing (1-01-004-05)	1.04	0.28	0.76
No. 5 oil fired, tangential firing (1-01-004-06)	1.04	0.28	0.76
No. 4 oil fired, normal firing (1-01-005-04)	1.04	0.28	0.76
No. 4 oil fired, tangential firing (1-01-005-05)	1.04	0.28	0.76
Industrial boilers			
No. 6 oil fired (1-02-004-01/02/03)	1.28	1.00	0.28
No. 5 oil fired (1-02-004-04)	1.28	1.00	0.28
Distillate oil fired (1-02-005-01/02/03)	0.252	0.052	0.2
No. 4 oil fired (1-02-005-04)	0.252	0.052	0.2
Commercial/institutional/residential combustors			
No. 6 oil fired (1-03-004-01/02/03)	1.605	0.475	1.13
No. 5 oil fired (1-03-004-04)	1.605	0.475	1.13
Distillate oil fired (1-03-005-01/02/03)	0.556	0.216	0.34
No. 4 oil fired (1-03-005-04)	0.556	0.216	0.34
Residential furnace (A2104004/A2104011)	2.493	1.78	0.713

a To convert from lb/103 gal to kg/103 L, multiply by 0.12. SCC = Source Classification Code.
b References 29-32. Volatile organic compound emissions can increase by several orders of magnitude if the boiler is improperly operated or is not well maintained.

Table 1.3-9. EMISSION FACTORS FOR SPECIATED ORGANIC COMPOUNDS FROM FUEL OIL COMBUSTION[a]

Organic Compound	Average Emission Factor[b] ($lb/10^3$ Gal)	EMISSION FACTOR RATING
Benzene	2.14E-04	C
Ethylbenzene	6.36E-05[c]	E
Formaldehyde[d]	3.30E-02	C
Naphthalene	1.13E-03	C
1,1,1-Trichloroethane	2.36E-04[c]	E
Toluene	6.20E-03	D
o-Xylene	1.09E-04[c]	E
Acenaphthene	2.11E-05	C
Acenaphthylene	2.53E-07	D
Anthracene	1.22E-06	C
Benz(a)anthracene	4.01E-06	C
Benzo(b,k)fluoranthene	1.48E-06	C
Benzo(g,h,i)perylene	2.26E-06	C
Chrysene	2.38E-06	C
Dibenzo(a,h) anthracene	1.67E-06	D
Fluoranthene	4.84E-06	C
Fluorene	4.47E-06	C
Indo(1,2,3-cd)pyrene	2.14E-06	C
Phenanthrene	1.05E-05	C
Pyrene	4.25E-06	C
OCDD	3.10E-09[c]	E

[a] Data are for residual oil fired boilers, Source Classification Codes (SCCs) 1-01-004-01/04.
[b] References 64-72. To convert from $lb/10^3$ gal to $kg/10^3$ L, multiply by 0.12.
[c] Based on data from one source test (Reference 67).
[d] The formaldehyde number presented here is based only on data from utilities using No. 6 oil. The number presented in Table 1.3-7 is based on utility, commercial, and industrial boilers.

ATTACHMENT 3

March 6, 2006 letter from company about baghouse efficiency

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CONESTOGA-ROVERS
& ASSOCIATES

209 Gothic Court, Suite 109, Franklin, TN 37067
Telephone: 615.778.2535 Facsimile: 615.778.2533
www.CRAworld.com

2006 MAR 15 AM 9:34

March 10, 2006

Reference No. 36812

Mr. Barry Stephens
Air Pollution Control Division
Tennessee Department of Environment and Conservation
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243
Attn: Mr. Jerry Swinea

Dear Mr. Stephens and Mr. Swinea:

Re: Renewal/Modification of Title V Permit – Update
Permit No. 548483, Source No. 92-0020
Kentucky-Tennessee Clay Company
Gleason, Tennessee

On behalf of Kentucky-Tennessee Clay Company (K-T Clay), Conestoga-Rovers & Associates (CRA) respectfully submits this update to the February 4, 2005 air permit renewal application for the above referenced facility.

As CRA discussed with Mr. Jerry Swinea of the Tennessee Department of Environment and Conservation (TDEC), the attached Table 3 has been revised to increase the control efficiency estimates from 98% to 99.7% for seven sources with low air flow rates. This higher control efficiency is reasonable for these low-flow sources and demonstrates compliance with the emission standard of 0.02 grains per cubic foot. The attached Table 6 shows air flow rates and allowable particulate emissions. As confirmed with TDEC, it is reasonable to expect that all material handling sources at K-T Clay, which have at least a baghouse for emission control, will achieve an actual emission rate of 0.02 grains per cubic foot.

Thank you for your assistance with this matter. If you have any questions, please do not hesitate to contact us.

Yours truly,
CONESTOGA-ROVERS & ASSOCIATES

Steve Seachman

Steve Seachman, P.E.

SES/pdm/2
Encl.

c.c.: Mr. Steve Stroud, K-T Clay, Gleason, TN

TABLE 3, REVISION 1
MATERIAL HANDLING - PARTICULATE EMISSIONS
KENTUCKY-TENNESSEE CLAY COMPANY
GLEASON, TENNESSEE

3/6/06 Note: Revisions to this table are highlighted. The control efficiency estimate was increased on low air-flow sources to show compliance with 0.02 grains/cf.

Source	Permit Source ID	Stack ID	Maximum Throughput (tons/hour)	AP-42 Factor (lbs/ton)		Maximum Op. Sched. (hours/year)	Uncontrolled Emissions (tons/year)	Control Equipment	% Control Efficiency	Maximum Controlled Emissions (lbs/hour)	Maximum Controlled Emissions (tons/year)	Allowable Emissions TPY at 0.02 gr/cf
98-63 Milling System												
98-63 Milling System	01	TN014	18	1.2	(1)	8760	94.6	Cyclone & Baghouse	98%	0.43	1.89	8.35
200 Milling System												
200 Milling System	02	TN002	6	1.2	(1)	8760	31.5	Cyclone & Baghouse	98%	0.14	0.63	4.51
100 Milling System												
100 Milling System	03	TN001	12	1.2	(1)	8760	63.1	Cyclone & Baghouse	98%	0.29	1.26	8.35
Bagger System												
Bagger - Load into Tank	04	TN004	24	0.46	(2)	8760	48.4	2 Baghouses	98%	0.22	0.97	
Bagger - Loadout	04	TN004	24	0.15	(3)	8760	15.8	2 Baghouses	98%	0.07	0.32	
Bagger - Total Emissions	04	TN004									1.28	5.44
66 Fluidized Bed Dryer System												
66 Fluidized Bed Dryer System	05	TN009	25	1.2	(1)	8760	131.4	Baghouse	98%	0.60	2.63	
66 Semi-Dried Loadout	05	TN009	25	0.15	(3)	8760	16.4	Baghouse	98%	0.08	0.33	
66 Dryer System - Total Emissions	05	TN009									2.96	24.59
66 Roller Mill System with Silos and Loadout												
66 Roller Mill System	06	TN010	25	1.2	(1)	8760	131.4	Baghouse	98%	0.60	2.63	8.10
Truck Tanks 1, 2, 3, 4, 5, & 6, Tank 7 and Super Sack Loading												
Truck Tank 1 & 2 - Load into Tank	07	TN005	24	0.46	(2)	8760	48.4	Baghouse	99.7%	0.03	0.15	
Truck Tank 1 & 2 - Loadout	07	TN005	24	0.15	(3)	8760	15.8	Baghouse	99.7%	0.01	0.05	
Truck Tank 1 & 2 - Total Emissions	07	TN005									0.19	0.27
Truck Tank 3 & 4 - Load into Tank	07	TN006	24	0.46	(2)	8760	48.4	Baghouse	99.7%	0.03	0.15	
Truck Tank 3 & 4 - Loadout	07	TN006	24	0.15	(3)	8760	15.8	Baghouse	99.7%	0.01	0.05	
Truck Tank 3 & 4 - Total Emissions	07	TN006									0.19	0.64
Truck Tank 5 & 6 - Load into Tank	07	TN007	24	0.46	(2)	8760	48.4	Baghouse	99.7%	0.03	0.15	
Truck Tank 5 & 6 - Loadout	07	TN007	24	0.15	(3)	8760	15.8	Baghouse	99.7%	0.01	0.05	
Truck Tank 5 & 6 - Total Emissions	07	TN007									0.19	0.64
Truck Tank 7 & Super Sack - Loading	07	TN008	24	0.46	(2)	8760	48.4	Baghouse	98%	0.22	0.97	
Truck Tank 7 & Super Sack - Loadout	07	TN008	24	0.15	(3)	8760	15.8	Baghouse	98%	0.07	0.32	
Truck Tank 7 & SS - Total Emissions	07	TN008									1.28	2.73
300 Milling System												
300 Milling System	08	TN003	6	1.2	(1)	8760	31.5	Cyclone & Baghouse	98%	0.14	0.63	4.88

Source	Permit Source ID	Stack ID	Maximum Throughput (tons/hour)	AP-42 Factor (lbs/ton)		Maximum Op. Sched. (hours/year)	Uncontrolled Emissions (tons/year)	Control Equipment	% Control Efficiency	Maximum Controlled Emissions (lbs/hour)	Maximum Controlled Emissions (tons/year)	Allowable Emissions TPY at 0.02 gr/cf
Silo 1, 2, 3, and 66 Truck Tank - Transfer System												
Silo 1 - Load into Silo	09	TN012	25	0.46	(2)	8760	50.4	Baghouse	99.7%	0.03	0.15	
Silo 1 - Loadout	09	TN012	25	0.15	(3)	8760	16.4	Baghouse	99.7%	0.01	0.05	
Silo 1 - Total Emissions	09	TN012									**0.20**	0.75
Silo 2 - Load into Silo	09	TN013	25	0.46	(2)	8760	50.4	Baghouse	99.7%	0.03	0.15	
Silo 2 - Loadout	09	TN013	25	0.15	(3)	8760	16.4	Baghouse	99.7%	0.01	0.05	
Silo 2 - Total Emissions	09	TN013									**0.20**	0.75
Silo 3 - Load into Silo	09	TN015	25	0.46	(2)	8760	50.4	Baghouse	99.7%	0.03	0.15	
Silo 3 - Loadout	09	TN015	25	0.15	(3)	8760	16.4	Baghouse	99.7%	0.01	0.05	
Silo 3 - Total Emissions	09	TN015									**0.20**	0.83
66 Truck Tank - Load into Tank	09	TN011	25	0.46	(2)	8760	50.4	Baghouse	99.7%	0.03	0.15	
66 Truck Tank - Loadout	09	TN011	25	0.15	(3)	8760	16.4	Baghouse	99.7%	0.01	0.05	
66 Truck Tank - Total Emissions	09	TN011									**0.20**	0.83
										TOTAL PM10 (TPY)	**13.9**	**71.65**

Notes:

This table is presented to show AP-42 factors and emission calculation methods used to determine compliance. Allowable PM emissions are shown on Table 6.
Actual emissions, based on actual throughputs and operating hours, are shown on the Annual Fee Emissions Report which is attached separately.
Since cyclones are primarily used for material handling purposes, no additional control efficiency is counted for the cyclones.
All loadout operations have suction hoses that connect to the baghouse for that source.
1 - Emission factor for clay processing, apron dryer; per USEPA AP-42, Section 11.25-3, January 1995 Edition.
2 - Emission factor for cement unloading into silo (pneumatic); per USEPA AP-42, Section 11.12-2, October 2001 Edition.
3 - Emission factor for cement loadout (from silo) to truck; per USEPA AP-42, Section 11.12-2, October 2001 Edition.
If only Total PM factors are available, assume all PM is PM-10.
If Total PM and PM-10 factors are available, PM-10 factors were selected.

TABLE 6, REVISION 1
ALLOWABLE PARTICULATE EMISSIONS
KENTUCKY-TENNESSEE CLAY COMPANY
GLEASON, TENNESSEE

3/6/06 Note: No changes were made to the data on this table. Highlighted emission data are copied to Table 3. Low-flow sources are shown in red.

Permit Source ID	Stack ID (see note)	Source Name	NSPS ?	Exhaust Flow		Material Handling Allowable PM Emissions		Combustion Allowable PM	Total Allowable PM
				(acfm)	(dscfm)	(grains/dscf)	(tons/year)	(tons/year)	(tons/year)
92-0020-01	TN014	98-63 Milling System	Yes (1)	15,225	11,122	0.02	8.35	0.39	8.75
92-0020-02	TN002 (3)	200 Milling System	No	8,223	6,010	0.02	4.51	0.28	4.79
92-0020-03	TN001 (3)	100 Milling System	No	15,224	11,122	0.02	8.35	0.55	8.90
92-0020-04	TN004 (2)	Bagger	No	9,929	7,251	0.02	5.44		5.44
92-0020-05	TN009 (3)	66 Fluidized Bed Dryer System	No	44,837	32,747	0.02	24.59	0.71	25.30
92-0020-06	TN010 (3)	66 Roller Mill System with Silos and Loadout	No	14,766	10,788	0.02	8.10	1.15	9.25
92-0020-07	TN005 (2)	Truck Tank 1 & 2	No	493	362	0.02	0.27		0.27
92-0020-07	TN006	Truck Tank 3 & 4	Yes (1)	1,155	846	0.02	0.64		0.64
92-0020-07	TN007	Truck Tank 5 & 6	Yes (1)	1,155	846	0.02	0.64		0.64
92-0020-07	TN008 (3)	Truck Tank 7 and Super Sack Loading	No	4,967	3,630	0.02	2.73		2.73
92-0020-08	TN003 (3)	300 Milling System	No	8,893	6,499	0.02	4.88	0.28	5.16
92-0020-09	TN012 (2)	Silo 1	No	1,357	994	0.02	0.75		0.75
92-0020-09	TN013 (2)	Silo 2	No	1,357	994	0.02	0.75		0.75
92-0020-09	TN015	Silo 3	Yes (1)	1,104	1,104	0.02	0.83		0.83
92-0020-09	TN011	66 Truck Tank	Yes (1)	1,508	1,104	0.02	0.83		0.83
						TOTAL (TPY)	71.65	3.35	**75.0**

Notes:
"acfm" refers to actual cubic feet per minute.
"dscfm" refers to dry standard cubic feet per minute.
1 - New Source Performance Standards (NSPS) are for 40 CFR 60 Subpart OOO , which has a PM limit of 0.02 grains/dscf for material handling operations; this excludes dryer emissions (Table 4) which are also vented via milling system stacks.
2 - Stacks TN004, TN005, TN012, and TN013 have a PM limit of 0.02 grains/dscf based on TAPCR 1200-3-7-.04(1).
3 - For stacks with no grain/dscf limit cited in the Permit (TN001, TN002, TN003, TN008, TN009, TN010), K-T accepts a voluntary limit of 0.02 gr/dscf to avoid Major PSD (Prevention of Significant Deterioration) Status.